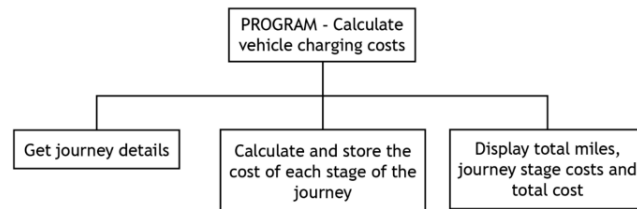
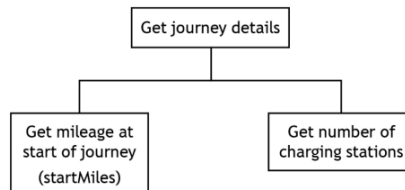


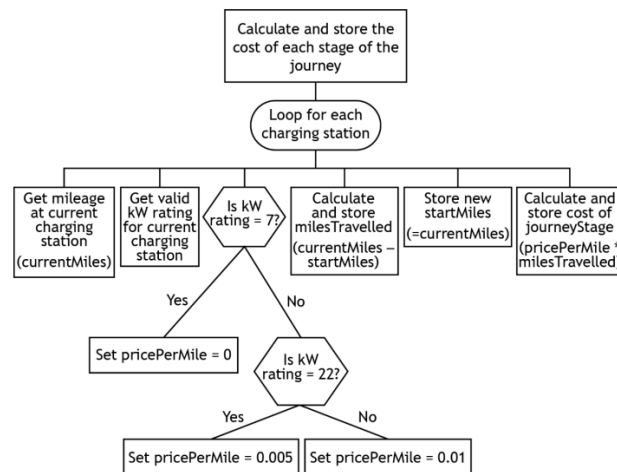
Main steps



Refinement of 'Get journey details'



Refinement of 'Calculate and store the cost of each stage of the journey'



```

1 #Calculate vehicle charging costs
2 startMiles = 0
3 noOfStations = 0
4 currentMiles = 0
5 kWRating = 0
6 milesTravelled = [0]*10
7 journeyStage = [0]*10
8 totalJourneyCost = 0.0
9 totalMiles = 0
10
11 #Get journey details
12 startMiles = int(input("Enter mileage at start of journey: "))
13
14 #Get valid number of stations
15 noOfStations = int(input("How many charging stations are on your journey: "))
16 while noOfStations < 0 or noOfStations > 10:
17     noOfStations = int(input("Invalid - can only record 10 stations max. Re-enter: "))
18
19 #Calculate and store code of each stage of journey
20 for index in range(noOfStations):
21     #Get current mileage at each station
22     currentMiles = int(input("Enter miles at station " + str(index + 1) + ": "))
23
24     #Get valid KW for each station
25     kWRating = int(input("Enter KW Rating for each station 7, 22 or 50: "))
26     while kWRating != 7 and kWRating != 22 and kWRating != 50:
27         kWRating = int(input("Invalid - Please Re-enter 7, 22 or 50: "))
28
29     #Set price per mile depending on kWRating
30     if kWRating == 7:
31         pricePerMile = 0
32     elif kWRating == 22:
33         pricePerMile = 0.005
34     else:
35         pricePerMile = 0.01
36
37     milesTravelled[index] = currentMiles - startMiles
38     startMiles = currentMiles
39     journeyStage[index] = pricePerMile * milesTravelled[index]
40
41 #Display total miles, journey cost
42 for counter in range(noOfStations):
43     print("Journey Stage Cost " + str(counter + 1) + ": " + str(journeyStage[counter]))
44
45     #Running total for total journey cost and total miles
46     totalJourneyCost += journeyStage[counter]
47     totalJourneyCost = round(totalJourneyCost, 2)
48     totalMiles = totalMiles + milesTravelled[counter]
49
50 #Display journey details
51 print("Total Journey Cost: " + str(totalJourneyCost))
52 print("Total Miles Travelled: " + str(totalMiles))
  
```

Refinement of 'Display total miles, journey stage costs and total cost'

